CERTIFICATE

This is to certify that

Febriyenti

as

Poster Presenter

CHARACTERIZATION OF PHYSICOCHEMICAL PROPERTIES OF FAMOTIDINE AND β – CYCLODEXTRINS COMPLEX INCLUSIONS USING FREEZE DRYING METHOD

In The

Medan International Conference on Advanced Pharmaceutical Sciences (MICAPS) 2014

"Advanced Drug Development in Cancer Chemoprevention and Metabolic Disorders"

November 3-4, 2014
Garuda Plaza Hotel, Medan–Indonesia

(Speaker 4.5 SKP; Presenter 3 SKP; Judge 2 SKP; Moderator 3 SKP; Committee 1.5 SKP; Participant 12 SKP)
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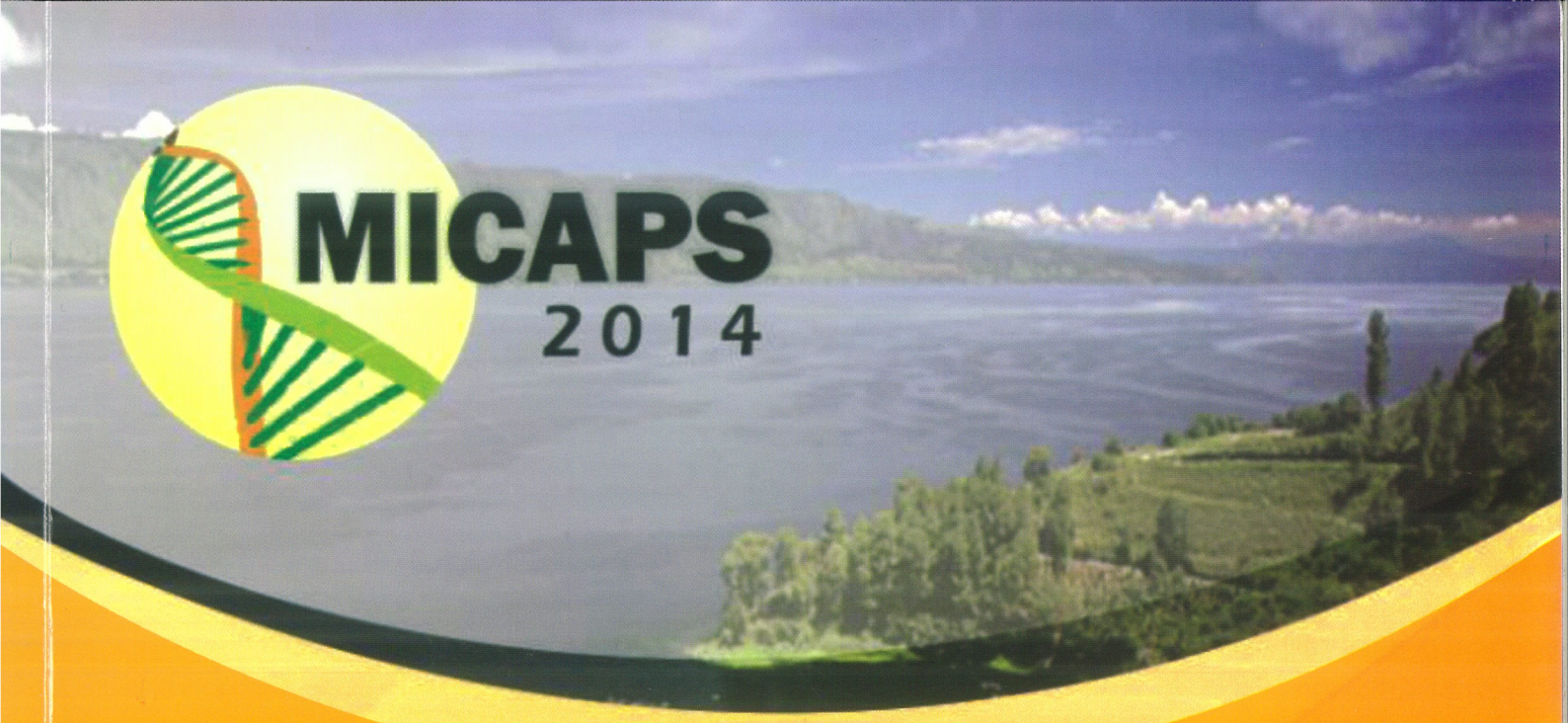

MICAPS 2014

PROGRAM BOOK & ABSTRACT

Medan International Conference on Advanced Pharmaceutical Sciences

"Advanced Drug Development in Cancer Chemoprevention and Metabolic Disorders"

November 3-4, 2014
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Program

Day 1st

07.30-08.00	**Garuda room**	**Welcome to participants and Registration**
08.00-08.45	Garuda room	Opening session (traditional welcome dance, preface from chairman of the organizing committee, speech by president of IAI, head of ISCC, Dean and Rector of University of Sumatera Utara)
08.45-09.30	Garuda room	Keynote Speaker (Prof. Dr. Amin Soebandrio) Moderator: Prof. Dr. Jansen Silalahi, M.AppSc., Apt.
09.30-10.00	Garuda room	Coffe break
10.00-10.45	Garuda room	Speaker 1 (Prof. Dr. Masashi Kawaichi) Moderator: Prof. Dr. Jansen Silalahi, M.AppSc., Apt.
10.45-11.30	Garuda room	Speaker 2 (Prof. Dr. Shun Hirota) Moderator: Prof. Dr. Hakim Bangun, Apt.
11.30-12.15	Garuda room	Speaker 3 (Dr. Hiroki Tanimoto) Moderator: Prof. Dr. Hakim Bangun, Apt.
12.15-13.00	Garuda room Pray room	Lunch pray session
13.00-15.00	Poster Board Rajawali room	Poster Presentation ISCC congress
15.00-15.30	Garuda room Pray room	Coffee break pray session
15.30-18.30	Garuda, Rajawali B, Cendrawasih room	Oral presentation
19.30-22.00	Garuda room	Gala Dinner

Day 2nd

08.00-08.45	**Garuda room**	**Speaker 4 (Prof. Yohanes Sardjono)** Moderator: Dr. Azizah Nasution, M.Sc., Apt.
08.45-09.30	Garuda room	Speaker 5 (Prof. Dr. Edy Meiyanto, M.Si, Apt) Moderator: Dr. Azizah Nasution, M.Sc., Apt.
09.30-10.00	Garuda room	Coffee break and sponsor session
10.00-12.15	Garuda, Rajawali B, Cendrawasih room	Oral presentatuon
12.15-13.15	Garuda room Pray room	Lunch Pray Session
13.15-16.30	Garuda, Rajawali B, Cendrawasih room	Oral Presentation
16.30-17.00	Garuda room	Coffee Break
17.00-18.00	Garuda room	Award and Closing ceremony

Day 3rd

09.00-15.00	**City Tour**

Index of Abstract and Schedule of Presentation

Oral Presentation

Parallel Session I	Day I	16.00-18.30	
	Venue	Garuda	
Moderator	**Prof. Dr. Hakim Bangun, Apt.**		**Page**
Category	**Molecular Biology and Biotechnology**		
O-3-1	**Agustina Setiawati** Targeting Estrogen Receptor-α: Focus on Natural Product Screening as Chemopreventive Agent Against Breast Cancer		**40**
O-3-2	**Rahmawaty Rachmady** Antiproliferative Effect of Secang (*Caesalpinia sappan* L.) Heartwood Ethanolic Extract on MCF-7/HER2 Positive		**41**
O-3-3	**Herwandhani Putri** Combination of Potassium Pentagamavunon-0 (KPGV-0) and Doxorubicin Induces Apoptosis and G2/M Arrest on T47D Breast Cancer Cells		**42**
Category	**Natural Product Chemistry**		
O-4-1	**Triana Hertiani** *Hydnophytum formicarum* Jack Extract and Fractions as a Potential Source for Antipathogenics Against *Pseudomonas aeruginosa* PAO1		**49**
O-4-2	**Dedi Hanwar** Cytotoxic Effect on Breast Cancer T47D Cells and Acute Toxicity Study of *Zingiber zerumbet* Extract		**50**
O-4-3	**Andayana Puspitasari** *Euphorbia hirta* L Extract Optimization and Dechlorophyllation		**50**
Category	**Pharmacology and Toxicology**		
O-5-1	**Wan Lelly Heffen** Evaluation of Cell Death by Active Compound Isolated from *Curcuma zedoaria* (Berg) Roescoe		**58**
O-5-3	**Eka Prasasti Nur Rachmani** Ethanolic Extract of *Annona muricata* Leaves Increasing Protein p53 Expression of DMBA Induced Breast Cancer Rats		**60**

Parallel Session II	Day I	16.00-18.30	
	Venue	Rajawali B	
Moderator	**Prof. Dr. Jansen Silalahi**		**Page**
Category	**Molecular Biology and Biotechnology**		
O-3-4	**Sri Handayani** Sinergistic Effect of Brazilin Combined with Cisplatin on WiDr Cells Through Apoptosis and Cell Cycle Arrest Induction		**42**
O-3-5	**Aditya Fitriasari** PGV-0 Enhances Cytotoxic Activity of Doxorubicin on 4T1 Metastatic Breast Cancer Cells		**43**

Index of Abstract and Schedule of Presentation

Oral Presentation

Parallel Session I	Day I	16.00-18.30	
	Venue	Garuda	
Moderator	**Prof. Dr. Hakim Bangun, Apt.**		**Page**
Category	**Molecular Biology and Biotechnology**		
O-3-1	**Agustina Setiawati** Targeting Estrogen Receptor-α: Focus on Natural Product Screening as Chemopreventive Agent Against Breast Cancer		**40**
O-3-2	**Rahmawaty Rachmady** Antiproliferative Effect of Secang (*Caesalpinia sappan* L.) Heartwood Ethanolic Extract on MCF-7/HER2 Positive		**41**
O-3-3	**Herwandhani Putri** Combination of Potassium Pentagamavunon-0 (KPGV-0) and Doxorubicin Induces Apoptosis and G2/M Arrest on T47D Breast Cancer Cells		**42**
Category	**Natural Product Chemistry**		
O-4-1	**Triana Hertiani** *Hydnophytum formicarum* Jack Extract and Fractions as a Potential Source for Antipathogenics Against *Pseudomonas aeruginosa* PAO1		**49**
O-4-2	**Dedi Hanwar** Cytotoxic Effect on Breast Cancer T47D Cells and Acute Toxicity Study of *Zingiber zerumbet* Extract		**50**
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Category	**Pharmacology and Toxicology**		
O-5-1	**Wan Lelly Heffen** Evaluation of Cell Death by Active Compound Isolated from *Curcuma zedoaria* (Berg) Roescoe		**58**
O-5-3	**Eka Prasasti Nur Rachmani** Ethanolic Extract of *Annona muricata* Leaves Increasing Protein p53 Expression of DMBA Induced Breast Cancer Rats		**60**

Parallel Session II	Day I	16.00-18.30	
	Venue	Rajawali B	
Moderator	**Prof. Dr. Jansen Silalahi**		**Page**
Category	**Molecular Biology and Biotechnology**		
O-3-4	**Sri Handayani** Sinergistic Effect of Brazilin Combined with Cisplatin on WiDr Cells Through Apoptosis and Cell Cycle Arrest Induction		**42**
O-3-5	**Aditya Fitriasari** PGV-0 Enhances Cytotoxic Activity of Doxorubicin on 4T1 Metastatic Breast Cancer Cells		**43**

O-3-6	**Ulfatul Husnaa** Brazilein in Combination with Doxorubicin Reveals Sinergistic Effect on 4T1 Cells	**43**
Category	**Natural Product Chemistry**	
O-4-5	**Tengku Siti Hajar Haryuna** The Effect of *Curcuminoid* to Noise Exposure Viewed from The Expressions of Calcineurin and HSP-70 in Cochlear Fibroblasts of *Rattus norvegicus*	**51**
O-4-6	**Ratih Anggraeni** Combination Effects of n-Hexane Extract Fruit Andaliman with Doxorubicin on Breast Cancer T47D Cells	**52**
O-4-7	**Sri Utami** Toxicity Test of Raw, Half-Ripe, and Ripe Fruits Extracts of *Garcinia picrorrhiza* Miq. in Polar, Semipolar, and Nonpolar Solvents using Brine Shrimp Lethality Test (BSLT)	**52**
Category	**Pharmacology and Toxicology**	
O-5-12	**Debi Meilani** Test of Inhibitory Pregnancy During and After Administration of Lancing (*Solanum verbascifolium*) Leaf Ethanol Extract	**67**
O-5-13	**Retno Murwanti** Immunomodulatory Activity of Herbal Formulation Containing *Phyllanthus niruri* L., *Piper crocatum* Ruiz. & Pav., and *Typhonium flagelliforme* (Lodd.) Blume	**68**

Parallel Session III	Day I	16.00-18.30	
	Venue	Cendrawasih	
Moderator	**Dr. M. Pandapotan Nasution, MPS., Apt.**		**Page**
Category	**Pharmaceutical Analysis**		
O-2-1	**R Robiyanto** Stability Investigation of Tigecycline in Three Types of Peritoneal Dialysis Solutions under Various Storage Conditions		**38**
O-2-2	**E. Lukitaningsih** Development and Validation Method of Metformin Hydrochloride Determination by High Performance Liquid Chromatography and Its Application (in Human Plasma and Tablet Dosage Form		**39**
Category	**Molecular Biology and Biotechnology**		
O-3-7	**Nunuk Aries Nurulita** The Potency of Citrulline as Arginase Inhibitor on Doxorubicin–Treated Breast Cancer Cells		**44**
O-3-10	**Rudy Salam** Hepcidin Downregulation through Inhibition Interleukin-6 Pathway with 5,6-Epxophysalin B		**47**
O-3-11	**V. Yurina** The Role of *Moringa oleifera* Extract Leaves Induces Apoptosis in Breast Cancer Cell Line		**47**

Category	Pharmacology and Toxicology	
O-5-9	**Ediati Sasmito** Combination Effect Non n-Hexan Fraction Gall Of Sarang Semut (*Myrmecodia tuberosa*) with Doxorubicin Against Lymphocyte, Vero, HeLa, T47D, MCF-7 Cells	65
O-5-10	**Barinta Widaryanti** Lemongrass (*Cymbopogon citratus*) as Antidiabetic on Alloxan- Induced Rat	65
O-5-11	**Rumiyati** Genotoxic Activity and Acute Toxicity of Leunca (*Solanum nigrum* L.) Herbs Ethanolic Extract	66

Parallel Session IV	Day II	10.00-12.15
	Venue	Garuda
Moderator	Prof. Dr. Hakim Bangun, Apt.	Page
Category	Molecular Biology and Biotechnology	
O-3-8	**Argandita Meiftasari** Ethanolic Extract of *Hedyotis corymbosa* L. Herb Increases Cytotoxic Activity of 5-Fluorouracil on WiDr Colorectal Cancer Through IKK/NFκB Pathway	45
O-3-9	**Yonika Arum Larasati** Determination the Activity of Dibenzylidene Boronic Acidcyclopentanone (DBBAC) *In Silico* and *In Vitro* on Breast Cancer Cells	46
O-3-12	**Poppy Anjelisa Z. Hasibuan** Cell Cycle Inhibition from Ethylacetate Extracts of *Plectranthus amboinicus*, (Lour.) Spreng.) Leaves on Hela Cells Lines	48
Category	Pharmacology and Toxicology	
O-5-2	**Denny Satria** Combinational Effect of Ethylacetate Extract of *Picria fel-terrae* Lour. with Doxorubicin on MCF-7 Cell Lines	59
O-5-8	**Edy Suwarso** Inhibitory Effects on Mitotic Chromosomes by Onions Prey Extracts	64
Category	Pharmaceutical Technology and Compounding	
O-7-1	**Erindyah R. Wikantyasning** Synthesis of Colorimetric Sensor Based on pH Responsive Polymers and Gold Nanoparticles	76
O-7-3	**Elfi Sahlan Ben** Formulation of Effervescent Granules of The Ethanolic Extract of Asam Kandis' Dried Rinds (*Garcinia cowa* Roxb.) and The Influence on Rats's Bodyweight	77
O-7-4	**Anita Sukmawati** Evaluation of Physical Characteristics and Drug Release of Gelatine Microparticle for Tissue Engineering	77

Parallel Session V	Day II	10.00-12.15
	Venue	Rajawali B
Moderator	Prof. Dr. Jansen Silalahi	Page
Category	Medicinal Chemistry	
O-1-4	**Hari Purnomo** Design of Paracetamol Competitor Molecules as Safer and More Potent Analgesic Agents	36
O-1-5	**M. Kuswandi Tirtodiharjo** Design of New Anticancer by Modification of Wild Garlic (*Mansoa alliacea*) Leaf's Compound, Ursolic Acid, Esterified with Carvacrol (KH1) and p. Coumaryl Alcohol (KH2)	37
O-1-6	**Pudjono** Synthesis and Characterization of Novel Curcumin Analog as Boron Carrying Pharmaceuticals	37
O-1-7	**Ratna Asmah Susidarti** Synthesis and DPPH Radical Scavenging Activity of 1-(2,5-Dihidroksifenil)-3-Piridin-2-Il-Propenon	38
Category	Pharmacology and Toxicology	
O-5-5	**Hariyanto IH** Immunomodulatory Effect of Pacar Air (*Impatiens balsamina* Linn.) Herbs and Its Effect on Animal Model of Adjuvant-Induced Arthritis	61
O-5-6	**Nurmeilis** The Effect of Combination of Kumis Kucing (*Orthosiphon stamineus*) Extract with Irbesartan to Renal Function on Male Mice DDY	62
O-5-7	**Nanang Fakhrudin** Anti-Inflammatory and Analgesic Activities of *Artocarpus altilis* Leaves Extract on Mice	63

Parallel Session VI	Day II	10.00-12.15
	Venue	Cendrawasih
Moderator		Page
Category	Medicinal Chemistry	
O-4-11	**Vera Susanti** Simplex Characterization and Phytochemical Screening and Isolation Steroid/Triterpenoid of *Gracilaria verrucosa* (Hudson) *n*-Hexane Extract	55
O-4-12	**Panal Sitorus** Antidiabetic Activity Test Of Ethyl Acetate Extract of Poguntanoh Leaves (*Curanga fel-terrae* Merr)	56
O-4-13	**Shirly Kumala** Phytochemical Screening and Antioxidant Activities of Lemongrass (*Cymbopogon citratus*) Water Solution	57
Category	Pharmacology and Toxicology	
O-7-13	**Fat Aminah** Combination Extra Virgin Olive Oil and Virgin Coconut Oil as Colouring Agent Solvents for Lipstick	84

Poster Presentation

No. Poster	Monday, 3 November 2014 / Venue	13.00-15.00 / Poster Board	Page
	Category	Medicinal Chemistry	
1.	P-1-1	**Supandi** Amidation of Ethyl P-Methoxycinnamate Isolated From Kencur (*Kaempferia galanga* L.) and *In Vitro* Test as Anti-Inflammatory	90
2.	P-1-2	**Ismail** Synthesis Of Methyl Diclofenac and Structure Elucidation Using GC-MS (Gas Chromatography Mass Spectrometry) and Infrared Spectroscopy	91
3.	P-1-3	**Fadilah** Design and *In Silico* Study of Gallic Acid Derivatives as A Potent Anticancer Colorectal Agent	92
4.	P-1-4	**Arry Yanuar** Molecular Dynamic Analysis of Docking Product of Complex α-Glucosidase with Sulochrin	92
	Category	Molecular Biology and Biotechnology	
5.	P-3-2	**Indri Kusharyanti** Synergistic Effect of *Impatiens balsamina* Linn on Cytotoxic Activity of Doxorubicin on T47D Cell Line	93
6.	P-3-3	**Liziyyannida** Anticancer Effects of Supernatan Yogurt LBA-ST on HeLa Cells via Decrease Heat Shock Protein 27 (Hsp27) *In Vitro*	94

KEYNOTE SPEAKER

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2. Chairman, Indonesian Association for Stem-cell (2012-current)
3. Chairman of Expert Panel, National Committee for Zoonotic Diseases Prevention and Control (2012-current).
4. Senior Lecturer in Clinical Microbiology. Medical Faculty University of Indonesia. (current)
5. Director, Eijkman Institute for Molecular Biology.

ABSTRACT :

RESEARCH AND DEVELOPMENT ON CANCER AND METABOLIC DISORDERS THERAPY BASED ON BIOLOGICAL PRODUCT

Amin Soebandrio*

Eijkman Institute for Molecular Biology

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Abstract

Cancer and metabolic disorders belong to the top rank of disease burden in Indonesia. As a developing country blessed with the second largest biodiversity country, Indonesia is trying hard to explore and develop various mode of treatments, including natural based and biological products. Stem cell technology has been applied in the experimental therapy of some degenerative diseases such as MCI, bone and joint disorders, etc. with promising results. Application in diabetic patients and other degenerative diseases is also undergoing. In cancer treatment, a combination of surgical and immunological approaches has recently been applied in the treatment of colon cancer in some hospitals in Jakarta and Bandung. In brief, lymphocytes from sentinel lymph-nodes were collected and isolated, then allowed to expand by treating with growth factor and tumor antigen for three to four weeks. The resulting "educated" lymphocytes where then re-suspended in a special mediumbefore re-infused in to the patient. Similar treatments done in other country were successfully increase the average survival rate from 0,8 year to 2,6 years. We are currently in the process of culturing the lymphocytes and expecting to re-infuse them to the patients. All cells are processed in a GCLP certified laboratory.

Keywords : Biological products, Stem cell, Degenerative, Lymphocytes, Cancer

Code : P-7-1
Category: Pharmaceutical Technology and Compounding

CHARACTERIZATION OF ACTIVATED CARBON FROM KLUWAK SHELL (*Pangium edule* Reinw)

Henny Rachdiati[1]*, Suryati [2], and Gustan Pari [3]

Faculty of Pharmacy and Health Sciences, Universiti Kuala Lumpur Royal College of Medicine Perak, Malaysia[1],
Faculty of Pharmacy, Andalas University, Padang, Indonesia[2],
Product Research and Development Centre, Indonesia[3]

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Abstract

Characterization of activated carbon producing from kluwak shells have been conducted. Kluwak shell was activated by steaming at 60, 90, 120, 150 and 180 minutes. Furthermore, NaOH was added as activator at concentration 1% and 2%. Commercial activated carbon was used as a standard. The characteristic of activated carbon which were observed including ash content, adsorptive capacity towards benzene vapors, chloroform, carbon tetrachloride and formaldehyde and microscopic structure of activated carbon.
The result showed that activated carbon without treatment with NaOH had an ash content less than 10%. Moreover, carbon content for all treated activated carbon and commercial activated carbon were 79.34 - 90.56%. The high absorptive capacity towards benzene and chloroform was shown by activated carbon which were steamed more than 120 minutes with value 14% and 21% respectively. Meanwhile, the high absorptive capacity towards formaldehyde was shown by activated carbon which were steamed more than 90 minutes with the value of 15%. All treated activated carbon showed to have higher absorptive capacity towards benzene vapors, chloroform, carbon tetrachloride and formaldehyde compared with commercial activated carbon. Scanning Electron Microscopy (SEM) showed that activated carbon had pores if they were carbonated in furnace at 500°C.

Keywords : activated carbon, *Pangium edule* Reinw, kluwak shell, characterization

Code : P-7-2
Category: Pharmaceutical Technology and Compounding

CHARACTERIZATION OF PHYSICOCHEMICAL PROPERTIES OF FAMOTIDINE AND β – CYCLODEXTRINS COMPLEX INCLUSIONS USING FREEZE DRYING METHOD

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Abstract

Study of famotidine complex inclusion with β – cyclodextrins have been done with freeze drying method. The comparisation between famotidine and β – cyclodextrins for each form I, II, III are 1:1, 1:2, and 2:1. The characteristic of physicochemical properties done by *Differential Thermal Analysis* (DTA), X-ray diffraction (XRD), spectrocopy FT-IR, determination of content, and dissolution test which used the basket method. Base on X-ray diffraction could be seen that the famotidine has been complexed by β – cyclodextrins which marked by the increasing of halo amorf in complex inclusion system. The result of *Differential Thermal Analysis* (DTA) was marked by the movement of famotidin melting point and the decrease of endotemik peak intensity toward complex inclusion. The diversity of spectrocopy FT-IR show that a half of famotidin peak has been disappeared, that case marked as famotidin has been complexed by β – cyclodextrins. The result of disolution profile at 60 minutes for famotidin alone and in each form I, II, III are 56,47%, 49,68%, 54,70%, and 61,79%. The determination of active substance content for each form I, II, III are 111,4%, 112,5%, and 98,8%.

Keywords : famotidine, complex inclusion, β – cyclodextrins, freeze drying

Code : P-7-3
Category: Pharmaceutical Technology and Compounding

FORMULATION CREAM OF AVOCADO OIL AND EFFECTIVENESS AGAINST XEROSIS IN HEEL

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Abstract

Xerosis is dry and cracked skin condition commonly in heel caused by losing of water content in stratum corneum skin lipid and natural moisturizing factor. Xerosis could be treated by moisturizer. Avocado oil is believed to be efficacious to maintain moisture and softness of the skin, because it contains fatty acid and vitamin such as vitamin A that can prevent dry skin, while vitamin E and D which are as anti-aging. The purpose of this study is to formulate a cream for treatment of xerosis in heel using avocado oil.
Avocado oil was formulated in a cream with water in oil emulsion type. Avocado oil concentrations used were 10, 12.5, 15, 17.5 and 20%. Examination of the avocado oil creams include homogenity, measurement of pH, emulsion type, and the stability of the preparation. Activity test of the preparations were performed on 18 volunteers who had xerosis in heel for 4 weeks. The safety of cream was determined by irritation test that conducted on 21 volunteers.
The results showed that avocado oil could be formulated into a cream preparation that was homogeneous and stable during 12 weeks of storage. Irritation test conducted on 10 volunteers showed that no one got skin irritation. Cream with avocado oil concentration of 10% had been able to restore xerosis in heel. The best skin recovery of xerosis in heel visible in avocado oil concentration of 20%.
The conclusion of this study is avocado oil could be formulated in a cream. The cream didn't induce irritation. Application of the cream for 4 weeks could treat xerosis in volunteer's heels.

Keywords : Avocado oil, w/o emulsion type, xerosis